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and

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Patent Claims

1. A method for connecting a sheet metal component (9) to a component (13) consisting of cast metal, in which the sheet metal component (9) and the component (13) are welded to one another by means of a pulse-welding method.
2. The method as claimed in claim 1 for connecting a pipe (3) to a port (12) of a housing (13), the pipe (3) being manufactured from at least one sheet metal component (9) and at least the port (12) of the housing (13) being manufactured from cast metal, in which the port (12) and the at least one sheet metal component (9) are welded to one another by means of a pulse-welding method.
3. The method as claimed in claim 1 or 2, in which the connection is provided by means of a pulsed welding current source.
4. The method as claimed in one of claims 1 to 3, in which a laser welding method is employed.
5. The method as claimed in one of claims 1 to 3, in which a TIG welding method is employed.
6. The method as claimed in one of claims 1 to 3, in which an MAG welding method is employed.
7. The method as claimed in one of the preceding claims, in which at least those regions of the at least one sheet metal component (9) and of the port (12) of

the housing (13) which are to be welded together are thermally controlled to a processing temperature before welding.

8. The method as claimed in one of the preceding claims, in which at least those regions of the at least one sheet metal component (9) and of the port (12) of the housing (13) which are to be welded together are cooled in a controlled manner after welding.

9. The method as claimed in one of the preceding claims, for a pipe which is produced from an inner pipe (7) and an outer pipe (9) which is manufactured from the at least one sheet metal component, in which the inner pipe (7) is introduced into the port (12) of the housing (13) and the port (12) is welded to the at least one sheet metal component from which the outer pipe (9) is manufactured.

10. A connection between a sheet metal component (9) and a component (13) consisting of cast metal, in which the sheet metal component (9) and the component (13) are welded to one another by means of a pulse-welding method.

11. A connection as claimed in claim 10, between a pipe (3) and a port (12) of a housing (13), the pipe (3) being manufactured from at least one sheet metal component (9) and at least the port (12) of the housing (13) being manufactured from cast metal, in which the port (12) and the at least one sheet metal component (9) are welded by means of the pulsed welding current source.

12. The connection as claimed in claim 10 or 11, in which the pipe (3) has an inner pipe (7) and an outer pipe (9) which is manufactured from the at least one

sheet metal component, the inner pipe (7) and the outer pipe (9) being separated from one another by an airgap (11).

13. The connection as claimed in one of the preceding claims, in which the inner pipe (7) is introduced into the port (12) of the housing (13), and the port (12) is welded to the at least one sheet metal component from which the outer pipe (9) is manufactured.

14. The connection as claimed in one of the preceding claims, in which the pipe is designed as an exhaust manifold (3).

15. The connection as claimed in one of the preceding claims, in which the inner pipe (7) is designed as a gas-carrying pipe (7) of an airgap-insulated exhaust manifold (3).

16. The connection as claimed in one of the preceding claims, in which the housing is designed as part of an exhaust assembly (5) and the port as an inflow gas duct (12) of this exhaust assembly (5).

17. The connection as claimed in claim 16, in which the exhaust assembly is designed as a turbocharger (5).

18. An exhaust system, with an exhaust manifold (3) which is manufactured from at least one sheet metal component and with an exhaust assembly (5) with a housing having a port (12), at least the port (12) being manufactured from cast metal, in which the port (12) of the exhaust assembly (5) and the at least one sheet metal component from which the exhaust manifold (3) is manufactured are welded together by means of a pulsed welding current source.

19. Exhaust system as claimed in claim 18, in which the exhaust manifold is designed as an airgap-insulated exhaust manifold (3) and the exhaust assembly as a turbocharger (5).